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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,532	07/07/2003	David H. McFadden	54330/322597	9062

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EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
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3749

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/614,532

Applicant(s)

MCFADDEN, DAVID H.

Examiner

Josiah Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 95-116 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 95-116 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>5/18/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Receipt of applicant's amendment filed 10/26/2006 is acknowledged.

Terminal Disclaimer

2. The terminal disclaimer filed on 10/10/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,874,495 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 95-109 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,409,453 to Smith ("Smith").

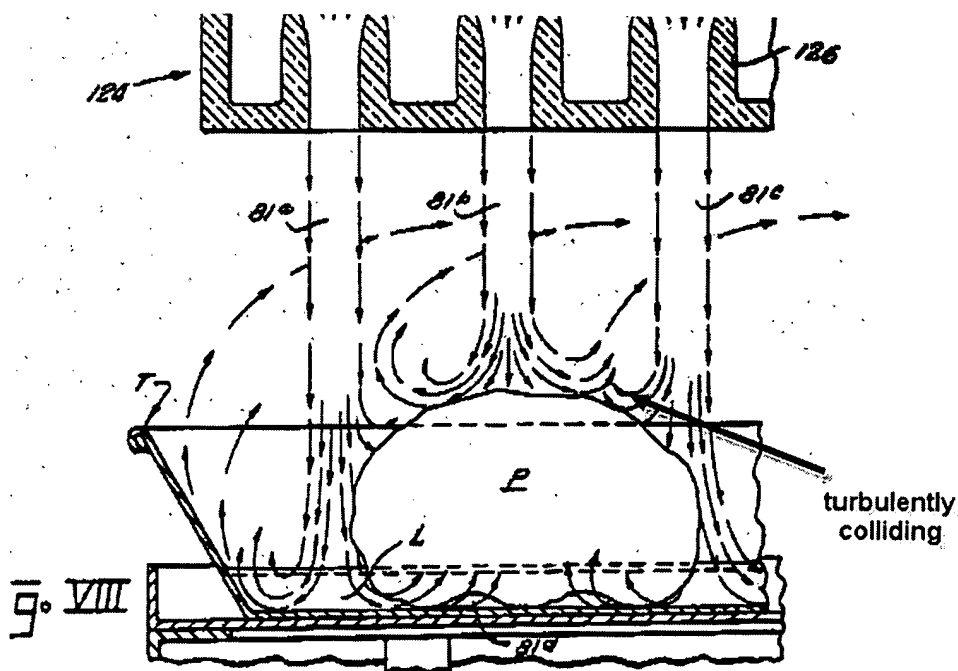
Smith discloses in the specification and Figs. 1-18 an invention in the same field of endeavor as applicant's invention and as described in applicant's claims 95-109 (note the Figs. In Smith are disclosed with roman numerals but have been reference below using corresponding numbers 1-18). In particular, Smith shows a system and method of speed cooking a food product with gas comprising the steps of: providing a housing (1) defining a cooking chamber, providing

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a first means (any one of 80, Figs. 2 and 3 or 124, Fig. 8) for directing gas within the cooking chamber and a second means (any other adjacent nozzle/opening 80, Figs. 2 and 3 or 124, Fig. 8). Each of openings (80 or 124) is disposed above the food product for directing gas above the food product. Gas from the openings is provided in the form of jets (81). As shown particular in Fig. 8, a first gas jet (81b) and a second gas jet (81c) are provided to strike a food product (P) and are considered to collide turbulently in close proximity to a surface of the food product to desirable enable "very rapid heat transfer and very rapid water vapor removal from the surface of the product" (see col. 10, lines 45-51). The following is a segment of Fig. 8 of Smith to further illustrate what the examiner considered to be "turbulently colliding" gas flows:

Segment of Fig. 8 of Smith

(examiner has added arrow and text)



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Further, the examiner notes that Smith expressly notes that jets (81) when striking a solid surface will be transformed into a “turbulent mushroom shaped pressure area” (see col. 11, lines 6-11).

While this discussion is in the context of the jets striking the bottom of the food product, the examiner considers that a person of ordinary skill in the art would recognize that the “turbulent mushroom shaped pressure area” would also result on the top of the food product (as shown for instance in Fig. 8 of Smith).

In regard to at least claim 96, see heating elements (50).

In regard to at least claim 97, 100, 102, 103, 107, and 108, blower motor (94) for controlling the air flow is described as a “variable speed motor” (see col. 9, lines 45-46) and the velocity of the jets (81) may be optimized/adjustable damped (see col. 9, lines 9-11) for controlling the heating of the food to provide “very rapid heat transfer” (col. 10, lines 47-48).

In regard to claim 98, at least Fig. 8 of Smith suggests multiple impingement points of the air and food product causing “simultaneously colliding the gas at multiple locations about the selected surfaces of the food product as recited” (see at least col. 10, lines 45-56).

In regard to at least claim 99, see at least Figs. 2 and 8 and note that air is provided to the cooking chamber via plenums (82 or 122) and exhausted from the cooking chamber (note arrows in each Fig showing air passed from the cooking chamber).

In regard to at least claim 101, multiple/additional means are provided for directing gas (see Figs. 2 or 8).

In regard to at least claims 104, 105 and 106, jet (81) velocity is in a range between 500 and 7,000 feet per minute (see col. 9, lines 5-6) meeting applicant’s recited ranges.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 110-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,409,453 to Smith ("Smith") in view of U.S. Patent No. 5,166,487 to Hurley et al. ("Hurley").

Smith discloses substantially all the limitations of claims 110-116 (note discussion of this reference above) with the possible exception of directing microwave energy from the opposing side of the cooking chamber. In Smith, while it is anticipated that a microwave energy generator will be used in conjunction with the heated jets (see at least col. 7, lines 3-21), Smith appears to only suggest the use of a single microwave energy generator.

Further, in regard to claims 112-114, as shown in Figs. 6 and 8, while the gas jets (81) are initially shown directed at an angle of approximately 90 degrees, prior to striking the surface of the food product the angle of the gas jet is shown at an angle of less than 90 degrees from horizontal thus meeting applicant's claim limitations. Alternatively, the embodiment of Smith's invention shown in Figs. 12-18 shows plates (385) with air jets (390) that are oriented at an angle and thus less than 90 degrees from horizontal in order to form an area of coverage that overlaps to progressively cook the entire surface of food product (P) (see col. 14, lines 31-34). It would be obvious to a person of ordinary skill in the art to incorporate the angled air injection of the

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second embodiment of Smith in the first embodiment to desirable form this area coverage that overlaps to progressively cook the entire surface of food product (P).

In regard to claim 115, again note the velocity range of 500 to 7,000 feet per minute (see col. 9, lines 5-6).

In regard to claim 116, as shown at least in Fig. 7, the opening at the top right side of the combustion chamber receiving exhaust air is considered an opening at the top of the cooking chamber as recited.

Hurley teaches a cooking method in the same field of endeavor as both applicant's invention and Smith. In Hurley, a cooking oven functions to provide convective and microwave heating (see abstract). The microwave heating is enabled by multiple microwave generating magnetrons (12 and 14) that are desirably arranged "at opposite ends of the cooking chamber" (see col. 5, lines 54-55) to direct microwave energy (15) to a food product.

Therefore, in regard to claims 110-116, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the cooking method of Smith to incorporate directing microwave energy at opposite sides of the cooking chamber as taught in Hurley as this location is expressly recognized in the art as desirable for directing microwave energy to a food product (see Hurley, col. 5, lines 47-55).

Response to Arguments

7. Applicant's arguments with respect to claims 95-116 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

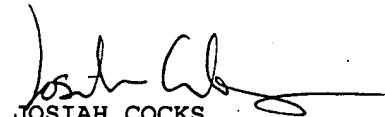
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Josiah Cocks whose telephone number is (571) 272-4874. The examiner can normally be reached on M-F 8:00-5:30.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jcc
January 7, 2007



JOSIAH COCKS
PRIMARY EXAMINER
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